

THE SELECTION OF METHOD OF INCLUSION OF DRY CALENDULA EXTRACT INTO A SOFT DOSAGE FORM FOR PSORIASIS TREATMENT

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Introduction. Soft dosage forms are widely used in psoriasis treatment. During ointment application maceration occurs, which helps penetration of active pharmaceutical ingredients into derma. Therapeutic effect from application of soft dosage forms directly depends on the kind of the basis, their components and the methods of inclusion of active substance into them.

Aim. Selection of method of inclusion of dry calendula extract. Study of its solubility in water, after jojoba oil, hydrophilic non-aqueous solvents.

Materials. As the study subject the following materials were used: jojoba oil, dry calendula extract, glycerin, propylene glycol, PEO-400, water, 96% alcohol.

Methods. The solubility research was conducted in accordance to GPU 2nd ed. and with use of microscopic method. The results of the research show that calendula extract is practically insoluble in the researched solvents.

Results. Solubility according to National Pharmacopoeia of Ukraine shows that calendula extract is practically insoluble in all samples of solvent. According to the results of microscopic analysis it was established that addition of purified water to the extract causes significant size decrease of the particles (up to 0.1 micrometres) with uniform distribution across all the field of view. Addition of alcohol, propylene glycol, PEO-400 or glycerin to the extract caused no change in linear size and form, however full moisturisation of powder particles was observed. The sample of the extract with jojoba oil showed that moisturisation of particles by edge type was caused along with decrease of size and form.

Conclusion. From the results of the research it can be concluded that the most optimal option in manufacturing of soft dosage forms of dry calendula extract is using jojoba oil as a supplement.